

Renewable Energy: Business Opportunities as China and Its Industries Restructure

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David G. Hartman has over twenty-five years of experience as an educator, executive, and consultant for organizations in the public and private sectors. He received his Ph.D. in economics from Harvard University, where he also served on the faculty for eight years. He then was Executive Director of the National Bureau of Economic Research.

For ten years, he managed 200 economists, consultants and analysts worldwide in forecasting and development of energy, trade, transportation, and macroeconomic policy scenarios at DRI/McGraw-Hill, the world's largest economic analysis and information firm. Numerous studies carried out under his direction were important guides to energy and environmental policy in the U.S., Europe, Korea, Taiwan, and China.

Over the past two years, he has worked in China on a number of development projects including telecommunications joint ventures, a coal-fired power plant, several mass transit projects, and an effort to develop geothermal energy. Recently, he has been an advisor on restructuring state enterprises and has conducted numerous seminars for the China's SETC on enterprise reform.

He was named Distinguished Professor of Management at Shanghai Jiao Tong University, he is Executive Director of the U.S.-China Capital Cities Friendship Council that seeks to improve business and cultural ties between China and the United States, and he is a member of the Working Group on the Environment in U.S.-China Relations at the Woodrow Wilson Center.

Renewable Energy Business Will Succeed Like Other Businesses

- Relationships Matter
- Contracts Matter
- Economics Matters Most...and Events are Reshaping the Business Environment

Relationships Matter

- Personal relationships are the imperative basis of all successful business
 - Investments in long-term relationships are prerequisite
 - Family and school ties are far more important than formal organization charts and published procedures
 - Those who have made long-term (and multi-tiered) relationship investments can, with care, introduce new business entities or ventures
- Product/service quality, technology, and successes elsewhere are less important
- Strong preference exists for U.S. partners above most other competitors
- One mistake creates a high mountain to climb

Relationships Matter

- Chinese partners are no longer required for many investment activities, but bring relationships of various types: customers, financiers, regulators, suppliers
- Chinese will base large financial commitments on “agreements” that are not “formal” or “bankable”
- Being “formal” does not necessarily raise the level of commitment attached to an agreement

Relationships Matter: Qualcomm CDMA Mobile Phone Manufacturing

- Has invested in relationships by supplying technology to important constituencies like People's Liberation Army
- Works within the system by making money licensing equipment manufacturing
- Has a good partner group
 - China Unicom, #2 national provider, looked to by government to erode China Telecom 90% market share. **Seemed likely to get support in developing the market.**
 - PLA is also a participant. **Provides access to spectrum** and owns part of operating company running CDMA systems today.
 - Local equipment manufacturers, anticipating even stiffer import competition under WTO, **are important allies.**
- Still, patience is required as internal disputes occur

Contracts Matter

- American companies expect and need written commitments on input (fuel) supply and power purchase, to get financing
- Written commitments are taken seriously and the attention devoted to language is usually a method of insuring that there is truly agreement
- Long discussions about contingencies is a consequence of planning ahead not of mistrust

Economics Matters Most

- Government policy here focuses efforts on renewable energy options that can meet a market test
- China's reforms make the "U.S. model" the only one that is viable and sustainable in the long-term
- Business focus must be on projects of a type and scale that make economic sense
- Local manufacturing is cheaper (sometimes) and now much easier to accomplish
- China must pay the price to come down the learning curve

Economics Matters: 200-300 MW Coal-Fired Plant in Northeast China

- “Where is the power purchase agreement?”
- “We know the Power Bureau”
- “Some important people want to burn gas”
- After many months economic events ruled:
 - China’s economy slowed
 - Concerns about WTO’s effect on heavy industry
- This project will happen when it makes economic sense

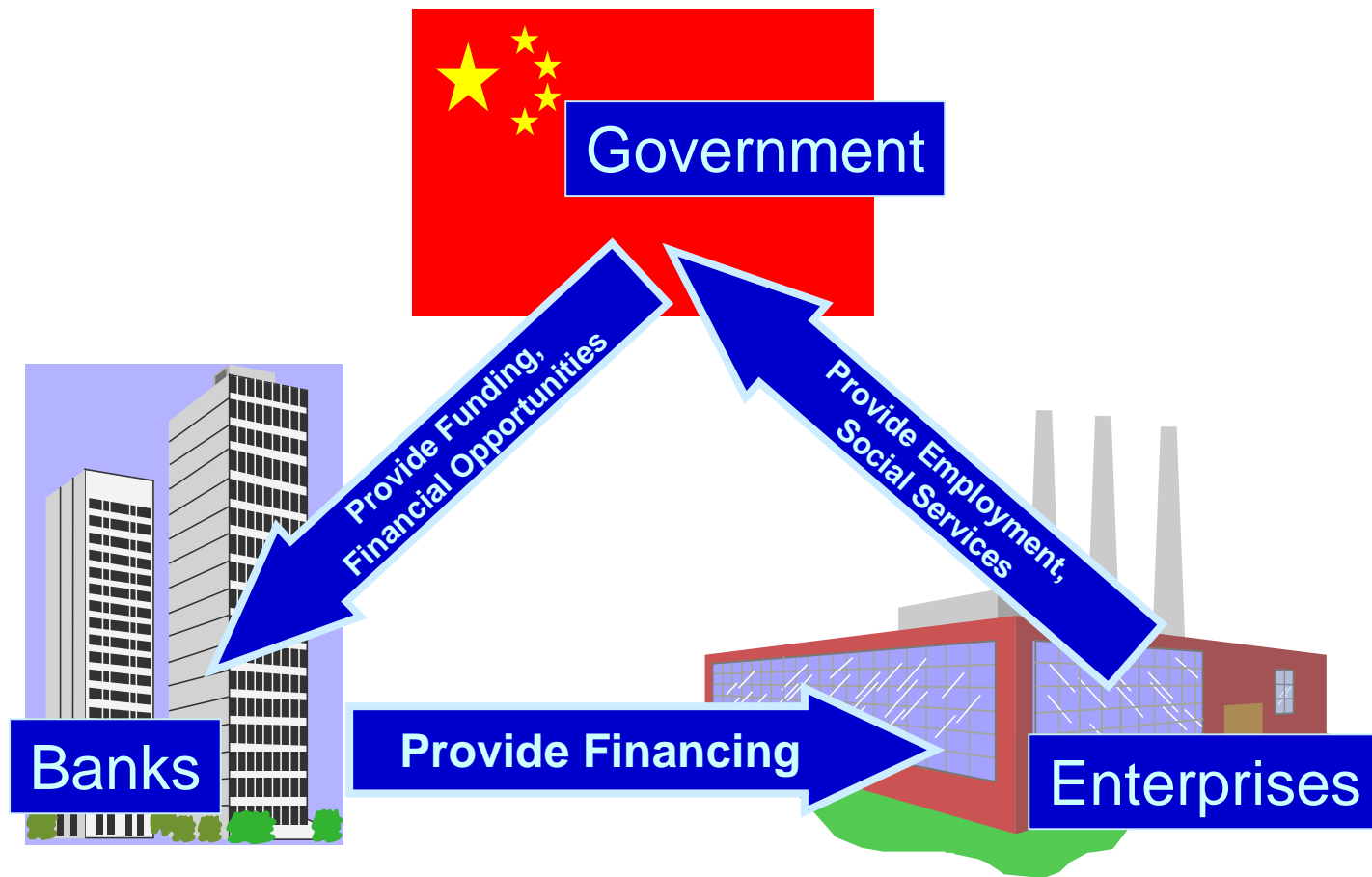
Restructuring Background:

China's Banking system is pressured by past and continuing losses suffered by state-owned enterprises

The government's rescue of the banking system is dependent on creating company profitability and responsibility

WTO membership will shuffle the deck of company prospects...there is a sense of urgency to limit the impact of company debts

Background: What Really Mattered



Background:

What Really Mattered

- SOEs have been expected to provide jobs and most social infrastructure
- Banks have been expected to fund these activities, loans were made involuntarily
- Government has used its power to create opportunities for SOEs and banks, but the system is not viable in a market economy

Background: Most State-Owned Enterprises are in Financial Difficulty

“Official” explanation: lack of funds

- Exchange rate depreciation from 2.5 to 8.3 increased debt burden
- SOE technologies are outdated, due to lack of funds
- SOE products are not attractive, due to lack of funds

Quietly acknowledged: lack of accountability

- SOEs have been burdened with social obligations, such as hospitals, schools, and housing
- SOE customers are often local governments or other “non-payers”
- SOEs borrowed to pay salaries, and banks were forced to lend
- “Corrupt” management has borrowed for personal & political reasons

Not widely understood: lack of management skill

- SOE executives are “plant managers”
- SOEs have little marketing skill or experience, or even recognition of need
- SOEs have no “Business-to-Business” history; run diverse businesses such as the “Steel Pipe Hotel” owned by the Tianjin Steel Pipe Company
- SOEs have huge excesses of middle management & factory labor

Opportunity:

Chinese state-owned companies are in the early stages of being merged, sold, or otherwise restructured:

- This presents opportunities for foreign involvement not conceivable a few years ago
- Companies that cannot survive in the markets they are in may control assets of considerable value in alternative uses not obvious to those in charge today, such as production of renewable energy equipment
- Also, former defense factories are being transformed into civilian operations

Risk:

Chinese companies will be driven as never before by the bottom line:

- WTO will dramatically broaden competition
- Banks will not fund unprofitable activities
- Industrial company decisions such as purchase of power will be made in consideration of the bottom line

Asset Management Companies

- Four companies, one created by each bank
- Modeled explicitly on U.S. Resolution Trust Company
- Acquire debt of SOEs from banks
- Debt swapped for equity at face value of debt & face value of assets, in negotiation with SOE
- AMCs have been told to “turn around” SOEs in 3 years but not to “interfere” in SOE management
- But, social infrastructure operations have been separated from company assets
- AMC executives are young and highly frustrated

Public Statements: Wishful Thinking?

- AMCs can help the SOEs improve without direct control
- AMCs can help the SOEs go public
- Foreign investors will supply technology and product upgrading
- Not much needs to change, in the way SOEs operate and employ citizens

Reality Understood by Some

- AMCs will gain control over SOE operations in the next few months
- Management will be changed
- Workforces will be restructured gradually and carefully, to a level of competitiveness
- Foreign investors will be able to acquire assets at market value
- I believe that the state-owned banks will themselves take on joint venture partners or even be sold

“Real” Reality

- Some SOEs are truly victims of bad past decisions, often politically imposed
- These are not easy to find but will be very attractive investments
- The biggest problem with many state enterprises is lack of market-driven management skills
- Selling state assets at below cost will lead to recriminations (possibly personal punishment)
- Purchase of state assets and later sale at a profit is risky
- Defined Chinese government criteria for choosing “winners” do not necessarily relate to future success
 - Success in the closed market of the past may not be indicative of potential in a WTO-driven open market
 - World-class equipment does not necessarily make for a world-class operation
 - Overstaffing may more than offset lower labor costs

Suggested Strategies for Potential Investors

- Identify companies that are viable but for the mistakes of the past
 - Make certain that key partners have important stakes in success...these may not be easy to identify
 - Move deliberately, with primary attention to political constituencies, to restructure operations and workforces
- Otherwise, identify companies that have valuable assets and prepare a plan to deal with the fallout from changing operations surrounding the assets
 - Market access
 - Product identity
 - Licenses and rights
 - Political constituencies
 - Skilled workers

The Bottom Line for Renewables

- Industry restructuring presents opportunities for acquiring productive assets no longer viable in their prior use.
- These opportunities will be found only with aggressive effort
- Intense competition in the entire economy will demand that power be sold at competitive prices